# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/695,473 | 10/27/2003 | Yukio Kadowaki | 2271/71337 | 5603 |

| | | |
|---|---|---|
| 7590 | 09/13/2006 | |

Ivan S. Kavrukov, Esq.
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, NY 10036

| EXAMINER |
|---|
| BITAR, NANCY |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2631 | |

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/695,473 | KADOWAKI, YUKIO |
| | Examiner | Art Unit | |
| | Nancy Bitar | 2631 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>27 October 2003</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-6</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>27 October 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>10/27/2003</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

## DETAILED ACTION

### *Specification*

The title of the invention is not descriptive. A new title is required that is

clearly indicative of the invention to which the claims are directed. The title should

mention the distinctive feature(s) of the claimed invention.

### *Claim Rejections - 35 USC § 102*

1.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of

1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments

Act of 2002 do not apply when the reference is a U.S. patent resulting directly or

indirectly from an international application filed before November 29, 2000. Therefore,

the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the

amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2.      Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Schwartz

et al.(U.S. Patent No. 2003/0219166 A1).

As to claim 1, Schwartz et al. discloses an image processing

apparatus(apparatus for specifying quantization, see abstract), comprising: a coding

part partitioning a wavelet coefficient obtained by performing two-dimensional discrete

wavelet transform on image data into bit-planes and generating coded data of the image

data by performing entropy coding on the wavelet coefficient for each of the bit-planes

(wavelet transform 202B to be applied to the data, column 3,[0057], note that code

blocks can be grouped into partitions. These rectangular arrays of coefficients can be

extracted independently. The individual bit-planes of the coefficients in a code-block are

entropy coded with three coding passes. Each of these coding passes collects

contextual information about the bit-plane compresses image data, column 1, [0006]).

Schwartz et al. in figure 5 teaches

a first memory (501)accommodating a size of a coded data portion generated from the

wavelet coefficient for each of the bit-planes through the execution of the entropy

coding( see column 5 ,[0083]);

a second memory (505) accommodating the coded data of the image data

 a setting part (i.e. user select, the threshold can be user set or adaptive based on some

criteria, see column 11,[0181]) setting a target size of the coded data (the coefficient is

set to be within the quantization bin size of the other coefficient value or twice the

quantization size, see column 11,[0181]);

and a data size adjustment part adjusting the size (coefficient values may be modified to

be either a predetermines closeness to another coefficient value, column 11,[0181])of

the coded data such that the size of the coded data falls within an acceptable range (tile

height between 128 and 1024 inclusive and using in-place memory for 3 levels of the

transform is a good heuristic, column5, [0080]) including the target size set by the

setting part (the coefficient is set to be within the quantization bin size of the other

coefficient value, column 11,[0181]) by sequentially discarding a portion of the coded

data(useless data, column 10, [0170]) in a least significant order from the second

memory based on the size of the coded data portion corresponding to each of the bit-

planes in the first memory( layer 0 has 4096 bits, layer 1 has 11,915 bits, column

9,[0153], note that the first memory accommodate the size thus each layer correspond

to a certain size).

As to claim 2, Schwartz et al. teaches the image processing apparatus as

claimed in claim 1, wherein the image processing apparatus is based on JPEG2000 (All

LH, HL and HH coefficients (using the nominclature of ITU-T Rec.T.800/ISO/IEC

154441:2000 JPEG 2000 Image Coding System) are coded, column 3, [0063]).

As to claim 3, Schwartz et al. teaches the image processing apparatus as

claimed in claim 2, wherein the coding part partitions the wavelet coefficient into bit-

planes for each code-block formed of a predetermined pixel matrix

( processing logic selects one or more layers for quantization based on sideband

information (processing block 1002). Note that sideband information described herein or

a copyright license for an image or text or other file format information i.e. pixel matrix,

column 10, [0167]),  and generates the coded data of the image data by performing

entropy coding on the wavelet coefficient for each of the bit-planes in accordance with

the JPEG2000 (wavelet transform 202B to be applied to the data, column 3,[0057], note

that code blocks can be grouped into partitions. These rectangular arrays of coefficients

can be extracted independently. The individual bit-planes of the coefficients in a code-

block are entropy coded with three coding passes. Each of these coding passes collects

contextual information about the bit-plane compresses image data, column 1, [0006])..

Schwartz et al. teaches the first memory accommodates a storage address(the file

format may contain data besides the code stream , i.e. .address, column 1,[0010])of a

coded data portion corresponding to each code-block and a size of a coded data portion

corresponding to each coding pass for each of the bit-planes of each code-block with

respect to the coded data stored in the second memory (the memory for level 4,5, and 6

could be placed in a single memory after level 3 has been generated or in a completely

different and separate memory, column 4,[0073],figure 3D,3F)

 and the data size adjustment part adjusts the size of the coded data (coefficient values

may be modified to be either a predetermines closeness to another coefficient value,

column 11,[0181])such that the size of the coded data falls within an acceptable range

(tile height between 128 and 1024 inclusive and using in-place memory for 3 levels of

the transform is a good heuristic, column5, [0080])  including the target size of the

coded data set by the setting part (the coefficient is set to be within the quantization bin

size of the other coefficient value, column 11,[0181])  by subsequently discarding a

portion of the coded data (useless data, column 10, [0170]) in a least significant order

from the second memory based on the size of the coded data portion corresponding to

each coding pass stored in the first memory ( layer 0 has 4096 bits, layer 1 has 11,915

bits, column 9,[0153]).

As to claim 4 differ from claim 1 only in that claim 4 is a method claim whereas,

claim 1 is an apparatus claim. Thus, claim 4 is analyzed as previously discussed with

respect to claim 1 above.

As to claim 5 differ from claim 2 only in that claim 5 is a method claim whereas, claim 2 is an apparatus claim. Thus, claim 5 is analyzed as previously discussed with respect to claim 2 above.

As to claim 6 differ from claim 3 only in that claim 6 is a method claim whereas, claim 3 is an apparatus claim. Thus, claim 6 is analyzed as previously discussed with respect to claim 3 above.

### *Conclusion*

3.    The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zador et al. (US 6,125,201) is cited to teach image data compression on a range of absolute image values from the largest to a determined smaller absolute value based on size or quality.

Lauiainen (US 2003/0039400 A1) is cited to teach hardware context generator for JPEG2000 block-coding

Chan et al. (2003/0113027 A1) is cited to teach the reconstruction of image based on a selected resolution, which can be in the form of compressed image data.

### *Inquiries*

4.    Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy Bitar whose telephone number is 571-270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chanh Nguyen can be reached on 571-272-0000. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nancy Bitar                                                    09/01/06

CHANH D. NGUYEN
SUPERVISORY PATENT EXAMINER